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Technical Data Sheet:

Quantitative Genomic DNA from *Clostridium perfringens* with ATCC 16S Tag 2

ATCC® Number	3624T2-DQ™
Product Description	We have engineered *Clostridium perfringens* to contain a unique synthetic DNA tag that can be detected via 16S rRNA profiling and whole-genome sequencing assays. The unique tag comprises four artificial variable regions (corresponding to the V1 through V4 regions in the 16S rRNA gene) flanked by conserved regions for PCR amplification, thereby enabling the identification of spike-in reads during the analysis of next-generation sequencing data.

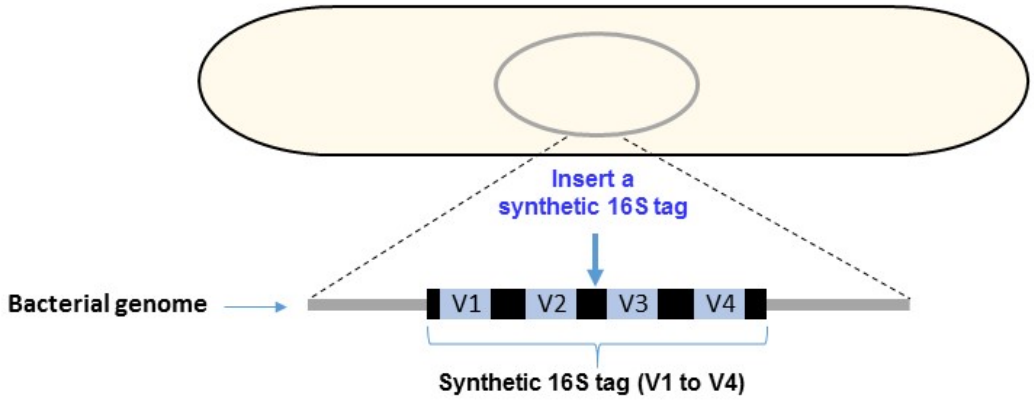

Figure 1. Production of the tagged strain. ATCC created a unique synthetic 16S tag sequences mimicking the native 16S rRNA gene of *C. perfringens*. This tag consists of 4 artificial variable regions (corresponding to V1 through V4 of the 16S rRNA gene) flanked by conserved regions for PCR amplification. The tag sequence was integrated into the genome of the cognate strain to create the tagged strain. The tag sequence is provided below.

Clostridium perfringens 16S Tag 2

AAATTGAGAGTTTGATCCTGGCTCAGGATGTACGACGAGGATTTAGGTGGGGAGGGACTGGCACGAGTAGTATACGGTTTT
AAAAAGTATTGGAGCGGCGGACGGGTGAGTAACACCTTAAGGCGGGTTGGGGCGTCCGAAACATACGATCCCGCTGGCAAA
GGTGCCAGTGGCAGACCTGGCGGGGAGTACCGGAGCATAAAGGATTCGCAAGCACGTTCAGCGGTTAGGGAGCCTGGGCT
GCAAGCGCGAAGGCCAGCGCTTTACCGTGCATGGTTAGCAAATGAGTCCCTGACCGACCACCACATAATCGTACGTCCGTAT

CCTCTCTACAGACTCCTACGGGAGGCAGCAGTGGTAGGCTCCATAATGCTAGTCGACCTCGTGCTTGGTCGCTGCTTCAACC
GTTCACAAGAACTCTCCTGCCAACGTTAATCGGCGTAGCGCGTAATCGATCACCGAGTGTAGTACGTATCTATCCCTATACGT
GCCAGCAGCCGCGGTAATACGTGAAGGTTTGAACTGAAATCAAGAAAGTTAATCAAGGGTTGCGTGCGCGGAATCGGCGTG
AAAACAAATTGAGCGGGTGGGAACAAAACGAAGATGGTAGTTCTATAGGTTGCAGATAACTCCCGTAACTTTAGCTGCGGTA
AGGAAGTGTGCGCTTACGGGATAGCGATATGTACTGGCCTAAGAGCTCCGGATTTCTAAGCTGCTGGGTCGAATGTAAGCAC
GACACATCTCTAATCCGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGAATAC